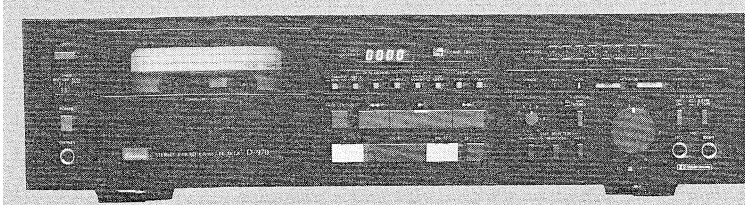
# SERVICE MANUAL

## STEREO 3-HEAD CASSETTE DECK

## SANSUI D-970



Sansui

SANSUI ELECTRIC CO., LTD.

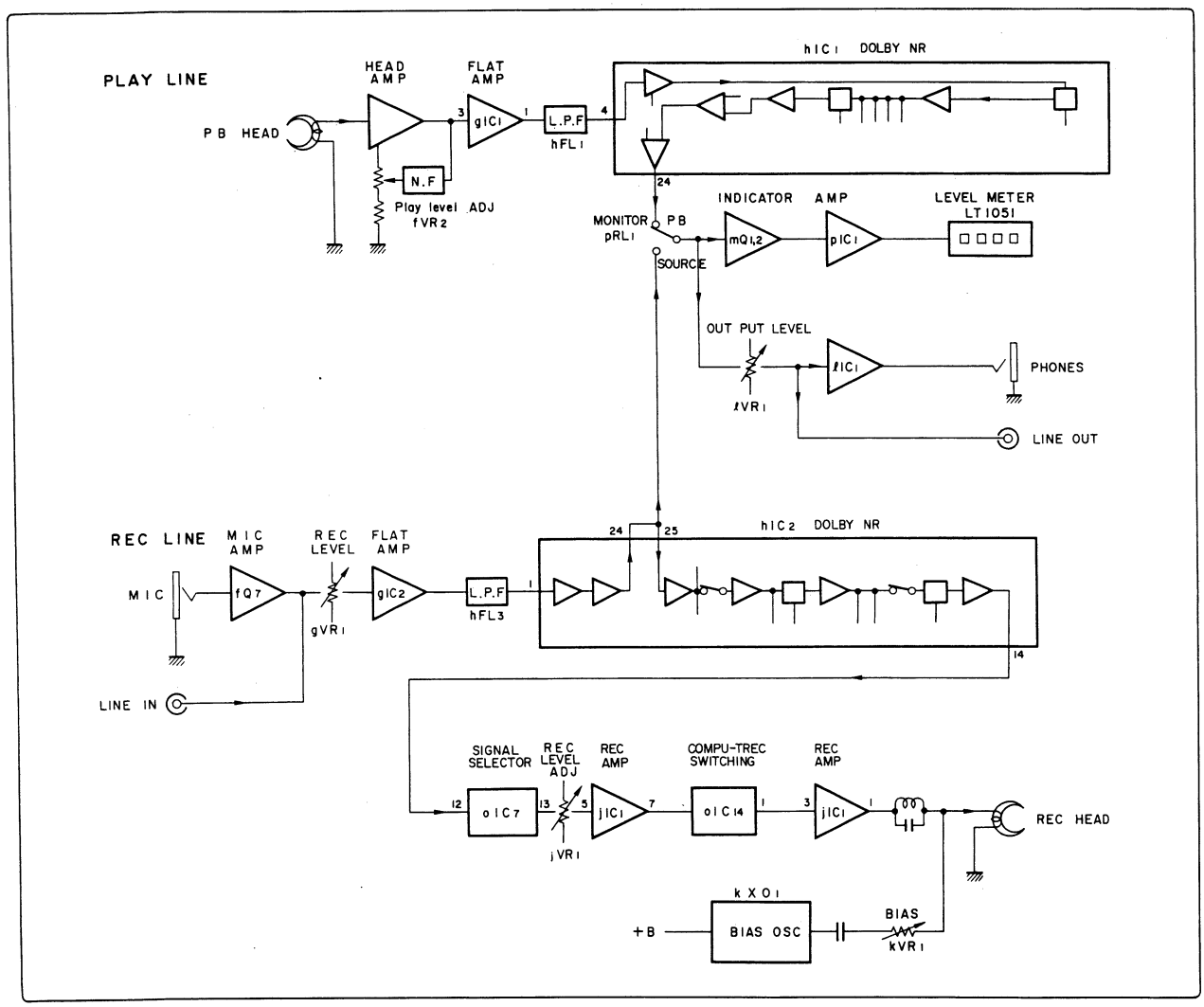
### ● SPECIFICATIONS

| | |
|---|---|
| Track | 4-Track (2-Channel Stereo) |
| Tape speed | 4.8 cm/sec. (1-7/8 ips) |
| Heads | Record/Playback: Ferrite Combination Head<br>Erase: Double Gap Ferrite Head |
| Motor | Capstan: FG Servo Motor<br>Reels: DC Motor |
| Wow and flutter | within 0.025 % WRMS |
| Fast wind time | approximately 80 seconds (C-60) |
| Frequency response (Record/Playback) | |
| Normal Tape (LH) (–20 VU) | 20 to 19,000 Hz<br>(30 to 18,000 Hz ±3 dB) |
| Metal Tape (–20 VU) | 20 to 23,000 Hz<br>(30 to 22,000 Hz ±3 dB) |
| (0 VU) | 30 to 13,000 Hz ±3 dB |
| Signal to noise ratio (Record/Playback) | |
| Metal Tape (without Dolby Noise Reduction Effect) | better than 61 dB (weighted) |
| (With Dolby Noise Reduction) | |
| B-NR | better than 71 dB (above 5 kHz) |
| C-NR | better than 81 dB (above 1 kHz) |
| Erasure factor (Metal Tape) | more than 65 dB at 1,000 Hz |
| Input sensitivity and impedance (0 VU, 1,000 Hz) | |
| MIC | 0.4 mV/200Ω ~ 5 kΩ |
| LINE EN (REC) | 70 mV/47 kΩ |
| Output level (0 VU, 1,000 Hz) | |
| LINE OUT (PLAY) | 350 mV |
| PHONES | 200 mV |
| Power requirements | |
| Power voltage | 100, 120, 220, 240 V (50/60 Hz) |
| For U.S.A. and Canada | 120 V (60 Hz) |
| Power consumption | 40 W |
| Dimensions | 430 mm (16-15/16") W<br>111 mm (4-3/8") H<br>324 mm (12-3/4") D |
| Weight | 7.1 kg (15.7 lbs) net<br>8.2 kg (18.1 lbs) packed |

* Design and specifications subject to changes without notice for improvements.

* Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby" and the double D symbol are trade marks of Dolby Laboratories Licensing Corporation.

# 1. BLOCK DIAGRAM




# 2. OPERATION OF COMPU-TREC

## (COMPUterized-Tape REsponse Control)

- Since the mechanism operations and electrical operations employed in D-970 are similar to those of D-570, back tension servo operation is similar to that of D-550M, the explanations of these operations are omitted from this manual.

Fig. 2-1 oIC3b comparator input terminal level

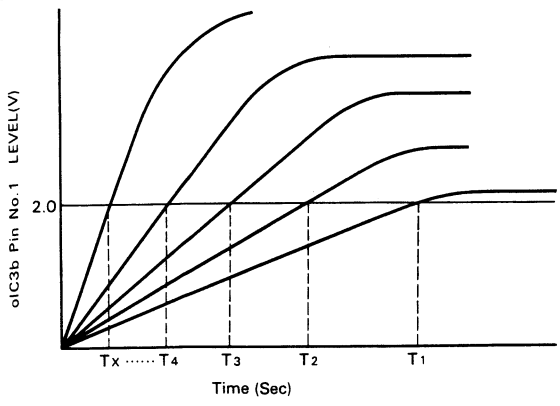



Fig. 2-2

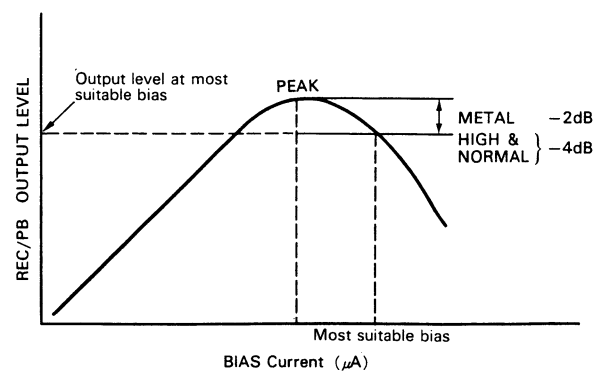
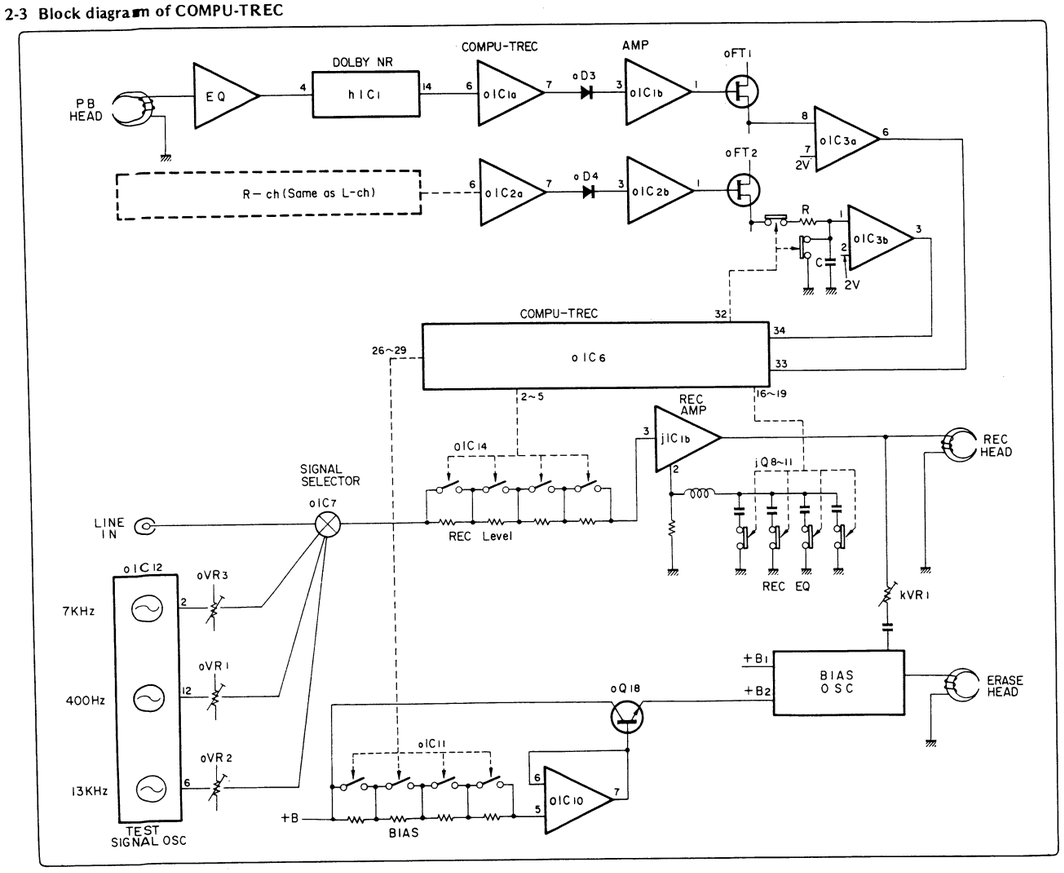


Fig. 2-3 Block diagram of COMPU-TREC




COMPU-TREC system can be conformity with individual factors (bias current, rec level and rec equalizer) of each cassette tape for the purpose of exhibiting most suitable characteristics automatically and speedily. Therefore, it corrects uneven frequency response and error of rec level, it supports stable operation of dolby noise reduction and so on.

## 2-1. Operation of Bias Current Control

1) When the START button is pushed after pushing CLEAR button, and the COMPU-TREC operation starts. On and after step 2) are all automatic operation.
2) Test signal is changed from 400 Hz to 7 kHz signal, and REC & PLAY BACK operation start.
3) At the same time, bias current is changed from minimum to maximum by resistor (oR66 ~ 69) step by step (16 steps).
4) On each step, 7 kHz signal is record, and play back signal is detected by R-ch, it is inputted to the comparator (oIC3b) through the diode (oD4) and integral circuit.
5) The voltage of pin 2 (oIC3b) is 2 V constant.
6) Therefore, it takes (T) seconds to rise the voltage of pin 1 (oIC3b) up to 2 V, and to apply output (oIC3b) signal. (See Fig. 2-1)
7) Since the bias current level influences to the record/playback level, the rise time (T) is also changed. (See Figs. 2-1, 2-2)
8) At maximum record/play back level, then the rise tim is minimum.
9) oIC6 (μPD546C) memorize the relation of rise time and bias current on each step, since it control over bias level to apply maximum record/play back level, level of realizing the rise time that and (Tbest) time equal.

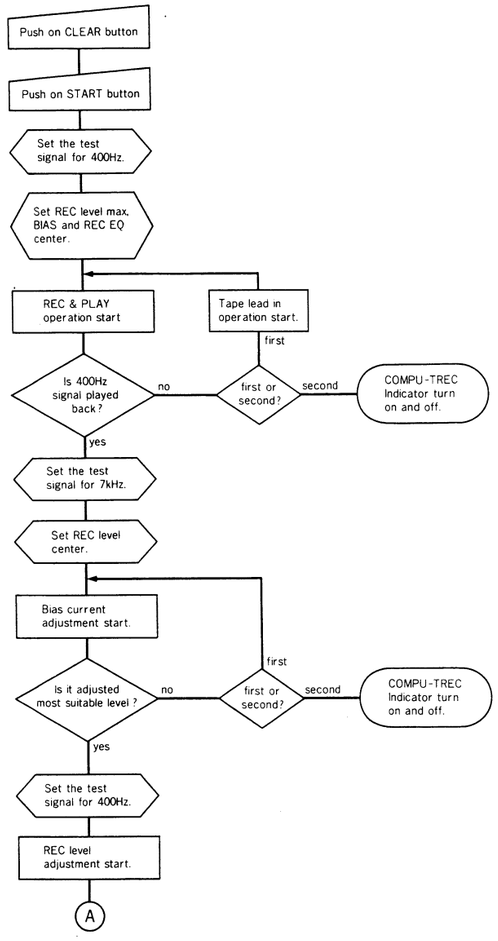
## 2-2. Operation of Rec Level Control

Rec Level adjustment starts after "2-1. Bias current control" automatically.
1) Test signal is changed from 7 kHz to 400 Hz signal.
2) Record and play back level is changed from minimum to maximum by resistor (jR9 ~ 12) step by step (16 steps).
3) On each step, 400 Hz signal is record, and play back signal are inputted to pin 8 (oIC3a) and pin 1 (oIC3b) through diode (oD3, oD4) and integral circuit.
4) The voltage of pin 8 and 1 (oIC3) rise up to 2 V, then oIC6 memorize the rec level as most suitable level.

## 2-3. Operation of Rec Equalizer Control

Rec equalizer adjustment starts after "2-2. Rec level control" automatically.
1) Test signal is changed from 400 Hz to 13 kHz signal.
2) Rec equalizer changed 16 steps by capacitor (jC14 ~ 17) of rec amplifier. (See Fig. 2-5)
3) On each steps, 13 kHz signal is record, and play back signal are inputted to pin 8 and 1 (oIC3) through diode (oD3, 4) and integral circuit.
4) The voltage of pin 8 and 1 (oIC3) rise up to 2 V, then oIC6 memorize the rec equalizer as most suitable equalizer.

Fig. 2-4 Flow chart of COMPU-TREC operation



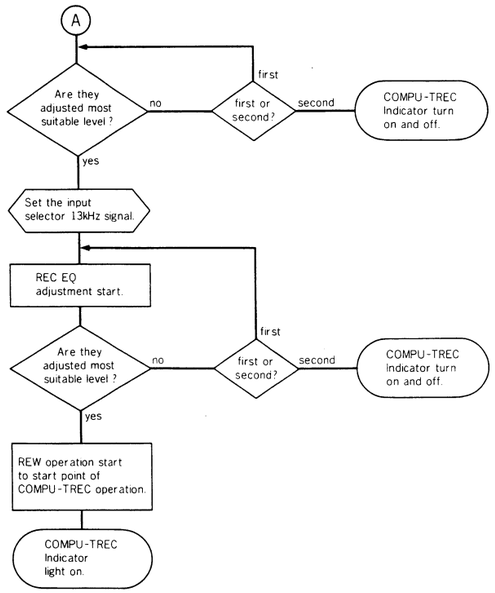




Fig. 2-5

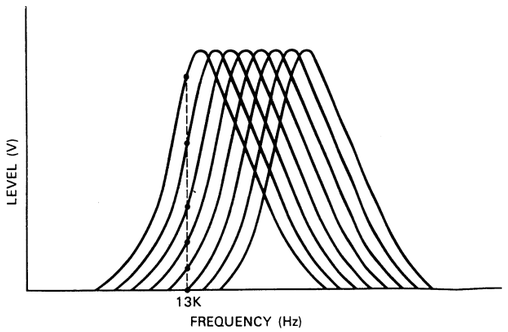
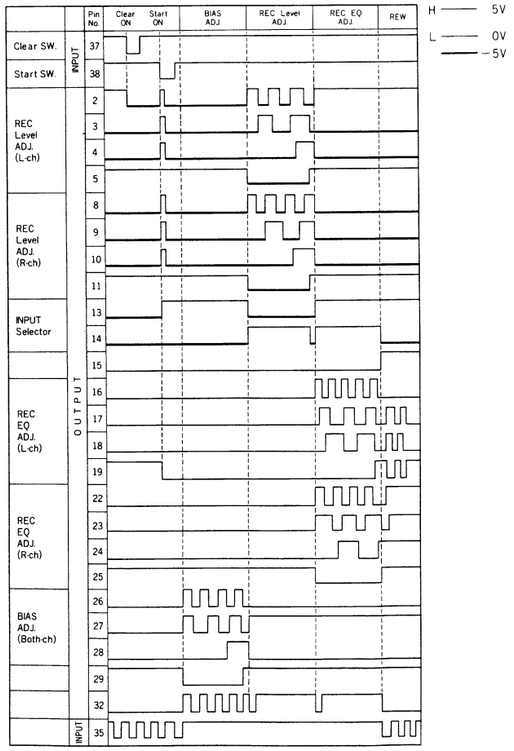



Fig. 2-6 COMPU-TREC IC <μPD-546C> timing chart



# 3. ADJUSTMENTS

## 3-1. Tape Speed Adjustment

Note: 1. Use Sansui Test Tape, SCT-S3K (3 kHz signal are recorded on the tape).
2. Connections are shown in Fig. 3-1.

Fig. 3-1

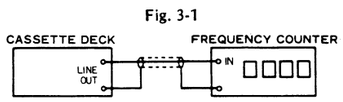
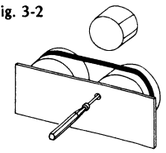



Fig. 3-2

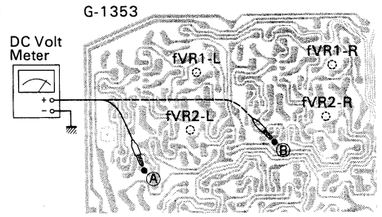


| STEP | SUBJECT | MEASURE OUTPUT | SETTING | ADJUSTMENT | ADJUST FOR | REMARKS |
|---|---|---|---|---|---|---|
| 1. | TAPE SPEED Adj. | LINE OUT Frequency | Playback the TEST TAPE SCT-S3K. | Turn semi-variable resistor as Fig. 3-2. | 3000Hz ±45Hz | Use small screw driver. |

## 3-2. Equalizer Adjustment (See Fig. 3-3)

Note: 1. Master Volume . . . . . Minimum
2. Room Temperature . . . . . 18°C ~ 28°C (65°F ~ 83°F)
3. Before turning ON POWER switch, set fVR1-L, fVR1-R to center position.
4. For this adjustment, run the unit for more than 3 minutes after the power is switched ON.

Fig. 3-3




| STEP | SUBJECT | MEASURE OUTPUT | ADJUST | ADJUST FOR | REMARKS |
|---|---|---|---|---|---|
| 1. | DC 0V Adj. L-ch | Between GND & Point Ⓐ | fVR1-L G-1353 | DC 0V ±100mV | |
| 2. | DC 0V Adj. R-ch | Between GND & Point Ⓑ | fVR1-R G-1353 | | |

## 3-3. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. Output Volume . . . . . MAX.
3. For this adjustment, use Sansui Test Tape, SCT-F10KN, SCT-L400N and SCT-F1K.
4. Set the Dolby NR switch to be OFF.
5. MONITOR SWITCH . . . . . TAPE
6. Connections are shown in Fig. 3-4.

Fig. 3-4

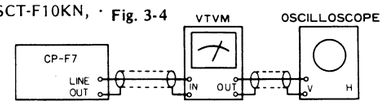
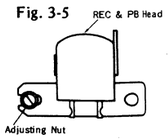



Fig. 3-5




| STEP | SUBJECT | MEASURE OUTPUT | SETTING | ADJUSTMENT | ADJUST FOR | REMARKS |
|---|---|---|---|---|---|---|
| 1. | REC/P.B. Head Adj. | LINE OUT VTVM, Scope | Playback the TEST TAPE SCT-F10KN | Adjust the azimuth adjusting Nut Fig. 3-5. | MAX. Output on both channels. | After this adjustment, lock the Nut with paint. |
| 2. | Playback Level Adj. | Same as above | Set TAPE SELECTOR to NORMAL (LH) position. Playback the TEST TAPE SCT-L400N. | Adjust each fVR2 on L-CH and R-CH. | 540mV ±2dB | See Fig. 3-3. |
| 3. | High Frequency Equalization Check | Same as above | Set TAPE SELECTOR to NORMAL (LH) position Playback the TEST TAPE SCT-F1K. | ——— | ——— | Read output levels on both channels. |
| | | | Playback the TEST TAPE SCT-F10KN. | ——— | ——— | Confirm that the output levels are within ±3dB comparing with the above readings. |

Note: On STEP 3, set the TAPE SELECTOR to HIGH ($CrO_2$) position during playback of SCT-10k, and confirm the indication on VTVM drops approximately 3dB ~ 4dB.

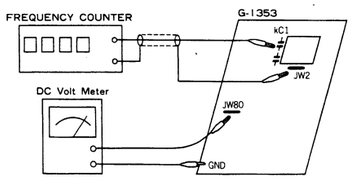
## 3-4. Recording Adjustment

### 1) Bias Frequency Adjustment

* Perform this adjustment when bias pot or REC/PB head replaced.

Note: 1. For this adjustment, use Sansui Test Tape, SCT-MA.
2. Set the Dolby NR Switch to be OFF.
3. Connections are shown in Fig. 3-6.

Fig. 3-6

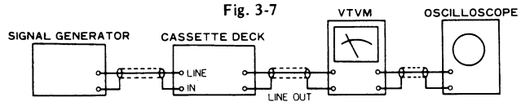



| STEP | SUBJECT | MEASURE OUTPUT | SETTING | ADJUSTMENT | ADJUST FOR | REMARKS |
|---|---|---|---|---|---|---|
| 1. | Bias Frequency Adj. | Between capacitor(kC1) & jamper wire (jW2)<br>Frequency counter | Load TEST TAPE SCT-MA Push on REC & PLAY buttons. Set TAPE SELECTOR to METAL (MA) Position. | Adjust Black core of OSC block (kXO1) | 105 kHz ±5 kHz | Black and Red cores are shown in Top View on page 19. |
| | DC Volt of Bias OSC Block Adj. | Between jumper wire (jW80) & GND.<br>DC Volt Meter | Same as above | Adjust Red core of OSC block (kXO1) | Max. Output | |

### 2) REC Level & Frequency Response Adjustment

Note: 1. For this adjustment, use Sansui Test Tape SCT-SA.
2. Output Volume . . . . . MAX.
3. Connections are shown in Fig. 3-7.
4. MONITOR SWITCH . . . . . SOURCE
5. Set the Dolby NR switch to be OFF.

Fig. 3-7

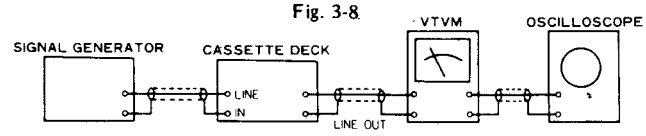



| STEP | SUBJECT | INPUT SIGNAL | MEASURE OUTPUT | SETTING | ADJUSTMENT | REMARKS |
|---|---|---|---|---|---|---|
| 1. | REC Level Adj. | Feed 1kHz, 100mV from S.G into LINE IN | LINE OUT VTVM Scope | Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH ($CrO_2$) position. 1. Push on PLAY and REC button 2. Adjust the Rec Level Volume for obtaining 380mV on VTVM. 3. Push off the MONITOR switch to be TAPE, then record and Play back the 1kHz signal. 4. Confirm that the output levels on both channels are 380mV ±2dB on VTVM. | 1. If not, turn jVR1 (REC, L-CH) and jVR1 (REC, R-CH) until output level 380mV ±2dB on both channel are obtained. 2. Repeat this REC Level adj. until the indication on VTVM will be 380mV ±2dB. | jVR1 (REC, L-CH), and jVR1 (REC, R-CH) are shown in Top View on page 19. |
| 2. | Frequency Response Adj. | Feed 1kHz 7mV (−20dB) and 13kHz 7mV (−20dB) from S.G. into LINE IN. | Same as above | Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH ($CrO_2$) position. 1. REC LEVEL Volume . . . Max. 2. Record the 1kHz and 13kHz signals from S.G. 3. Play back the 1kHz and 13kHz signals, then confirm 13kHz signal level in less than 1kHz signal level ±3dB on VTVM. | 1. If not, adjust kVR1L for L-CH and kVR1R for R-CH slightly. | After this adjustment, perform the SETTING 2 ~ 3 again. |
| 3. | Play back side bias trap Adj. | | Same as above | Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to METAL position. 1. Push of the MONITOR switch to be TAPE. 2. Set the Rec Level Volume to be minimum. | Adjust each hFL1 on L-CH and R-CH, until the Bias signal will be minimum on Scope and VTVM. | hFL1 (PB, L-ch) and hFL1 (PB; R-ch) are shown in Top View on page 19. |

## 3-5. COMPU-TREC Adjustment

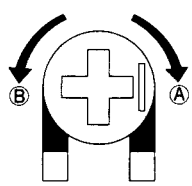
Note: 1. For this adjustment, use Sansui Test Tape SCT-SA.
2. Output Volume . . . . MAX.
3. Connections are shown in Fig. 3-8.
4. TAPE SELECTOR . . High ($CrO_2$)
5. MONITOR SWITCH . SOURCE
6. Set the Dolby NR switch to be OFF.
7. After push on the CLEAR button, and the START button.

Fig. 3-8




| STEP | SUBJECT | INPUT SIGNAL | MEASURE OUTPUT | SETTING | ADJUSTMENT | REMARKS |
|---|---|---|---|---|---|---|
| 1. | COMPU-TREC Bias Adj. | | Between center Pin of oVR3 or Pin 5 of IC7 & GND. VTVM, Scope | 1. Load the TEST TAPE SCT-SA<br>2. After one second, the signal level go up more.<br>3. Then confirm the level is 105 mV on VTVM. | 1. If not, adjust oVR3 until the signal level 105 mV is obtained. | The signal is generated about two seconds. If signal level is not obtained 105 mV. Push on the CLEAR, and the START button again, perform the "ADJUSTMENT 1", again. |
| 2. | COMPU-TREC REC Level Adj. | SCT-SA Feed 1kHz, 100mV from S.G into LINE IN | LINE OUT VTVM, Scope | Load the TEST TAPE SCT-SA.<br>1. Push on PLAY and REC button.<br>2. Adjust the Rec Level Volume for obtaining 380mV on VTVM.<br>3. Push off the MONITOR switch to be TAPE, then record and Play back the 1kHz signal.<br>4. Confirm that the output levels on both channels are 380mV on VTVM. | 1. If not, adjust oVR1 slightly.<br>2. Push on the CLEAR, and START button.<br>3. Repeat this REC Level adj. until the indication on VTVM will be 380mV. | oVR1 is shown in Top View on page 19.<br>* If more than it, refer to Fig. 3-9 Ⓐ.<br>If less than it, refer to Fig. 3-9 Ⓑ. |
| 3. | COMPU-TREC REC EQ Adj. | Feed 1kHz 7mV (−20dB) and 13kHz (−20dB) from S.G. into LINE IN. | Same as above | Load the TEST TAPE SCT-SA.<br>1. Record and Play back the 1kHz and 13kHz signals from S.G., then confirm that both output levels equal. | 1. If not, adjust oVR2 slightly.<br>2. Push on the CLEAR, and START button.<br>3. Repeat this REC EQ adj., until the both output levels will be equal. | oVR2 is shown in Top View on page 19.<br>* If 13kHz output level more than 1kHz output level, refer to Fig. 3-9 Ⓐ.<br>If 13kHz output level less than 1kHz output level, refer to Fig. 3-9 Ⓑ. |

Fig. 3-9 oVR1, oVR2

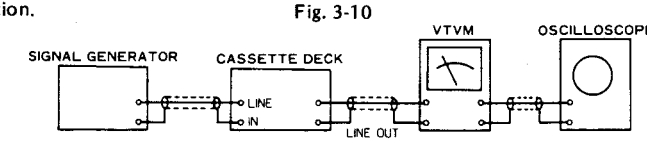



Top View

## 3-6. Peak Level Indicator Adjustment

Note: 1. Set the TAPE SELECTOR to be NORMAL (LH) position.
2. Output Volume . . . . MAX.
3. Set the Dolby NR Switch to be OFF.
4. MONITOR SWITCH . SOURCE
5. Connections are shown in Fig. 3-10.

Fig. 3-10



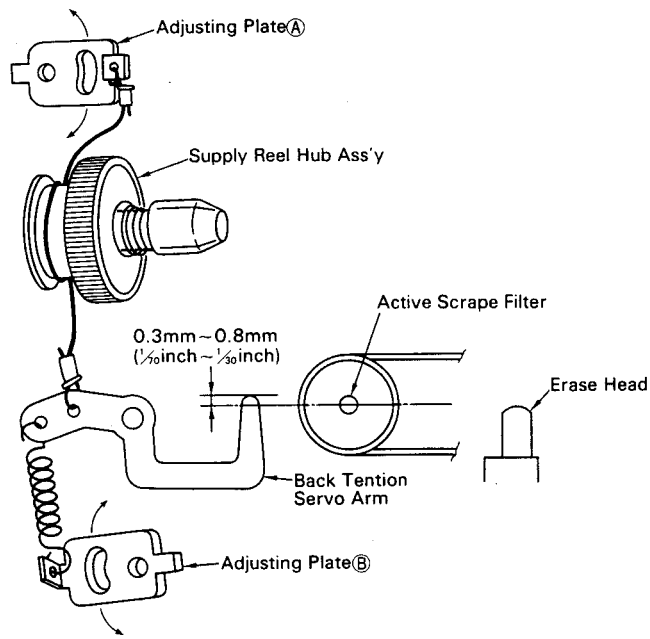

| STEP | SUBJECT | INPUT SIGNAL | MEASURE OUTPUT | SETTING | ADJUSTMENT | REMARKS |
|---|---|---|---|---|---|---|
| 1. | Peak Level Indicator Adjustment | Feed 1kHz, 140mV from S.G. into LINE IN | LINE OUT VTVM Scope | Load the TEST TAPE SCT-SA<br>1. Adjust the REC Level Volume for obtaining 540mV on VTVM. | 1. Light the 0dB point on level indicator to adjust mVR1.<br>2. Adjust the REC LEVEL Volume for obtaining 500mV on VTVM, then confirm the 0dB point on level indicator go out.<br>3. If not, adjust mVR1, until SETTING 1 ~ ADJUSTMENT 2 will be obtain: | mVR1 are shown in Top View on page 19. |

## 3-7. Back Tension Servo Adjustment (See Fig. 3-11)

Note: 1. Use Torque meter for Back Tension.

| STEP | SUBJECT | MEASURE OUTPUT | SETTING | ADJUSTMENT | ADJUST FOR |
|---|---|---|---|---|---|
| 1. | Back Tension Servo Adj. | ——— | 1. Remove Bonnet, Front panel and mechanism cover.<br>2. Put a paper between the points of half switch ($as_2$)<br>3. Push on PLAY Button. | Adjust the adjusting plate Ⓐ. | It is to adjust the tip of Back Tension Servo arm so as to 0.3mm to 0.8mm upward from the center of active scrape filter. |
| | | Torque meter | 1. Take off a paper at the points of half switch ($as_2$).<br>2. Load the torque meter.<br>3. Push on PLAY Button. | Adjust the adjusting plate Ⓑ in Fig. 3-7 until the Back Tension on torque meter will be 3g-cm to 5g-cm. | |

Fig. 3-11




### ♦ List of Sansui Test Tape

| Name of TEST TAPE | Recorded Frequency | Description |
|---|---|---|
| SCT-F40 | 40 Hz | Playback Frequency Response Check |
| SCT-F1K | 1 kHz | High Frequency Equalization Check |
| SCT-F10k | 10 kHz | REC/PB Head Adjustment |
| SCT-L400N | 400 Hz | Playback Level and Indicator Level Adjustment |
| SCT-S3K | 3 kHz | Speed Check and Wow & Flutter Check |
| SCT-LH NORMAL (LH) | | Recording Bias Adjustment |
| SCT-SA HIGH ($CrO_2$) | | REC/PB Level Adjustment |
| SCT-MA (METAL) | | Frequency Response Check |

### ♦ Tape Selector Position

| NORMAL Position | |
|---|---|
| FUJI | FL, FXI |
| MAXELL | UL, UD, XLI |
| TDK | D, AD, OD |
| SCOTCH | TARTAN CRYSTAL MASTER 120 |
| SONY | AHF, BHF, CHF Low-Noise |
| AGFA | SUPER SUPER COLOR SUPER FERRO DYNAMIC |
| BASF | LN Super LH I |

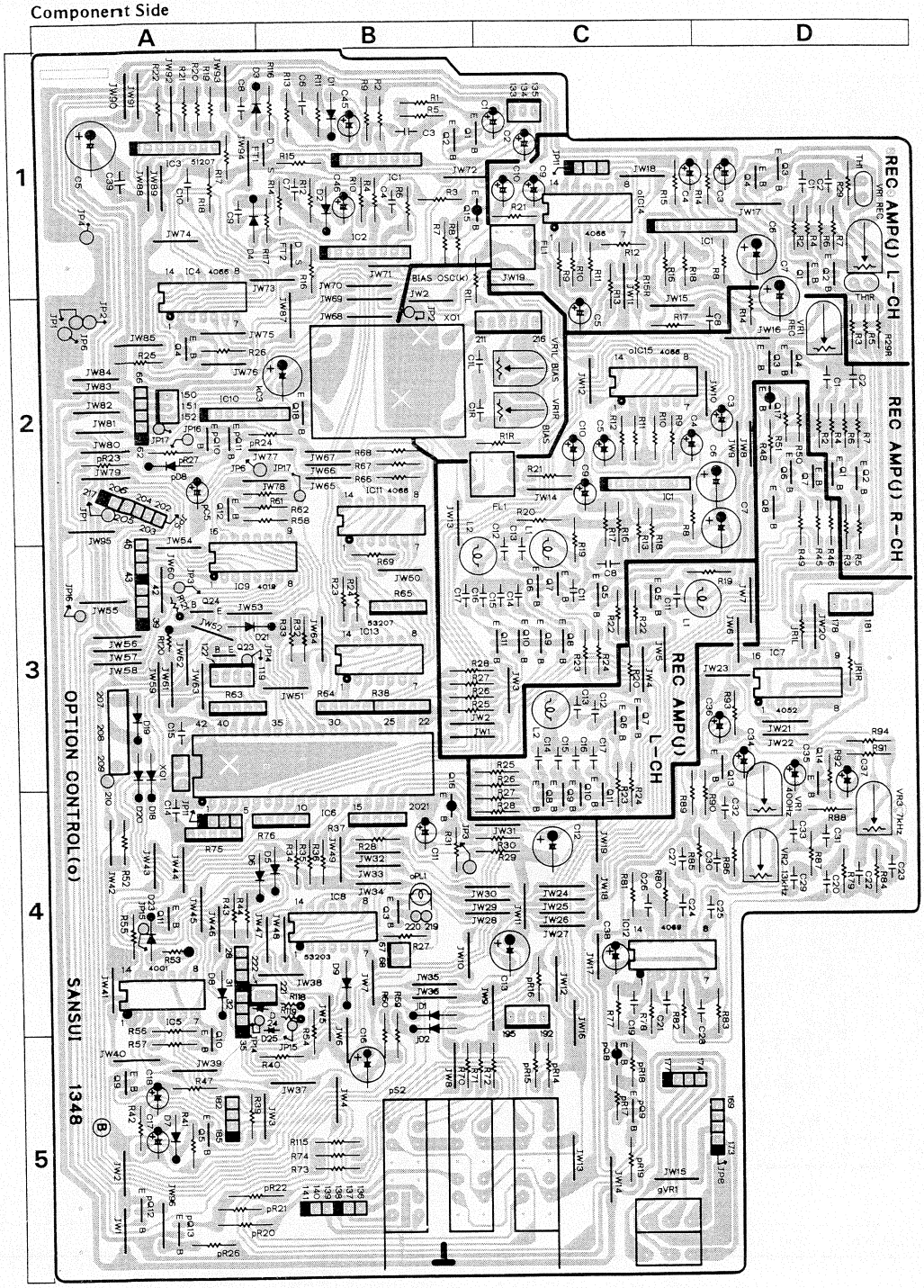
| HIGH Position | |
|---|---|
| FUJI | FX II |
| MAXELL | XL II |
| TDK | SA |
| SCOTCH | MASTER 70 |
| SONY | JHF |
| AGFA | STEREO CHROM |
| BASF | SCR |
| METAL Position | |
| MAXELL | MX |
| TDK | MA-R, MA |
| SCOTCH | Metafine |
| SONY | METALLIC |

# 4. PARTS LOCATION & PARTS LIST

•Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.

## 4-1. G-1348 COMPU-TREC & Rec. Amp. Circuit Board (Stock No. 00683801)

Component Side




Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| •Transistor | | |
| jQ1~4 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| jQ6~11 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| oQ1~14 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| oQ15~17 | 03012701 | 2SA999 |
| | or 07299601 | 2SA1115 |
| | or 07194701 | 2SA1015 |
| oQ18 | 07206901 | 2SC2001 |
| pQ8 | 03012701 | 2SA999 |
| | or 07299601 | 2SA1115 |
| | or 07194701 | 2SA1015 |
| pQ9~12 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| pQ13 | 07206801 | 2SA952 |

to be continued▶

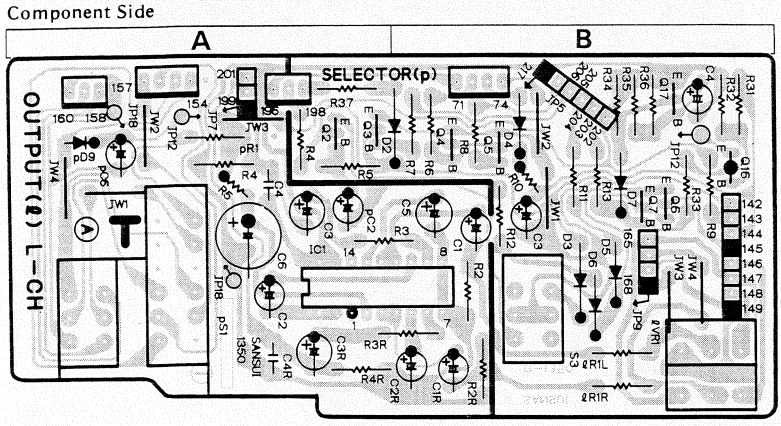
Parts List <G-1348>

| Parts No. | Stock No. | Description |
|---|---|---|
| •IC | | |
| jIC1 | 46147700 | M5218L |
| oIC1, 2 | 46147700 | M5218L |
| oIC3 | 46160600 | M51207L |
| oIC4 | 07264600 | MSM4066RS |
| oIC5 | 03609500 | MSM4001RS |
| oIC6 | 46208600 | μPD546C-312 |
| oIC7 | 03609700 | MSM4052RS |
| oIC8 | 46220500 | M53203P |
| oIC9 | 46209500 | MSM4019RS |
| oIC10 | 46147700 | M5218L |
| oIC11 | 07264600 | MSM4066RS |
| oIC12 | 03605700 | MSM4069RS |
| oIC13 | 46220600 | M53207P |
| oIC14, 15 | 07264600 | MSM4066RS |
| •Diode | | |
| jD1, 2 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| oD1~9 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| oD18~21 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| •FET | | |
| oFT1, 2 | 03703000, 1 | 2SK117-O, Y |
| gVR1 | 46177000 | 50kΩ (A) VR, REC LEVEL |
| jVR1 | 10370800 | 20kΩ (B) SVR, rec level ADJ. |
| kVR1 | 10371000 | 100kΩ (B) SVR, bias ADJ. |

| Parts No. | Stock No. | Description |
|---|---|---|
| oVR1, 2 | 10370700 | 10kΩ (B) SVR, compu-trec (400, 13 kHz) |
| oVR3 | 10370400 | 1kΩ (B) SVR, compu-trec (7 kHz) |
| jTH1 | 46257300 | Thermistor |
| jFL1 | 46220400 | Trap Coil (105 kHz) |
| jL2 | 46090900 | Inductor (5.6 mH) |
| kXO1 | 46208900 | OSC Block, bias |
| oXO1 | 09300700 | OSC Block, logic |
| •Resistor | | |
| oR37 | 46037800 | 2.7k (Array-4) |
| oR38, 63 | 46038900 | 22k (Array-4) |
| oR64 | 46037800 | 2.7k (Array-4) |
| oR65, 75 | 46038900 | 22k (Array-4) |
| oR76 | 46038900 | 22k (Array-4) |
| pR20 | 0C184900 | 82Ω 1W N.I.R. |
| pR22 | 00179100 | 100Ω 1W N.I.R. |
| •Capacitor | | |
| oC3, 4 | 07216800 | 0.068μF 25V C.C. |
| oC6~9 | 07216400 | 0.033μF 25V C.C. |
| oC20 | 07216200 | 0.022μF 25V C.C. |
| oC24 | 07215300 | 0.0039μF 25V C.C. |
| oC27, 30 | 07216800 | 0.068μF 25V C.C. |
| oC32 | 07216800 | 0.068μF 25V C.C. |
| oC29, 31 | 07215000 | 0.0022μF 25V C.C. |
| oC33 | 07215000 | 0.0022μF 25V C.C. |
| oC39 | 07215800 | 0.01μF 25V C.C. |
| oPL1 | 46220700 | Pilot Lamp, 8V 50mA |
| pS2 | 46178000 | Push SW., TAPE SELECTOR |

## 4-2. G-1350 Headphone Amp. Circuit Board (Stock No. 00684001)

Component Side



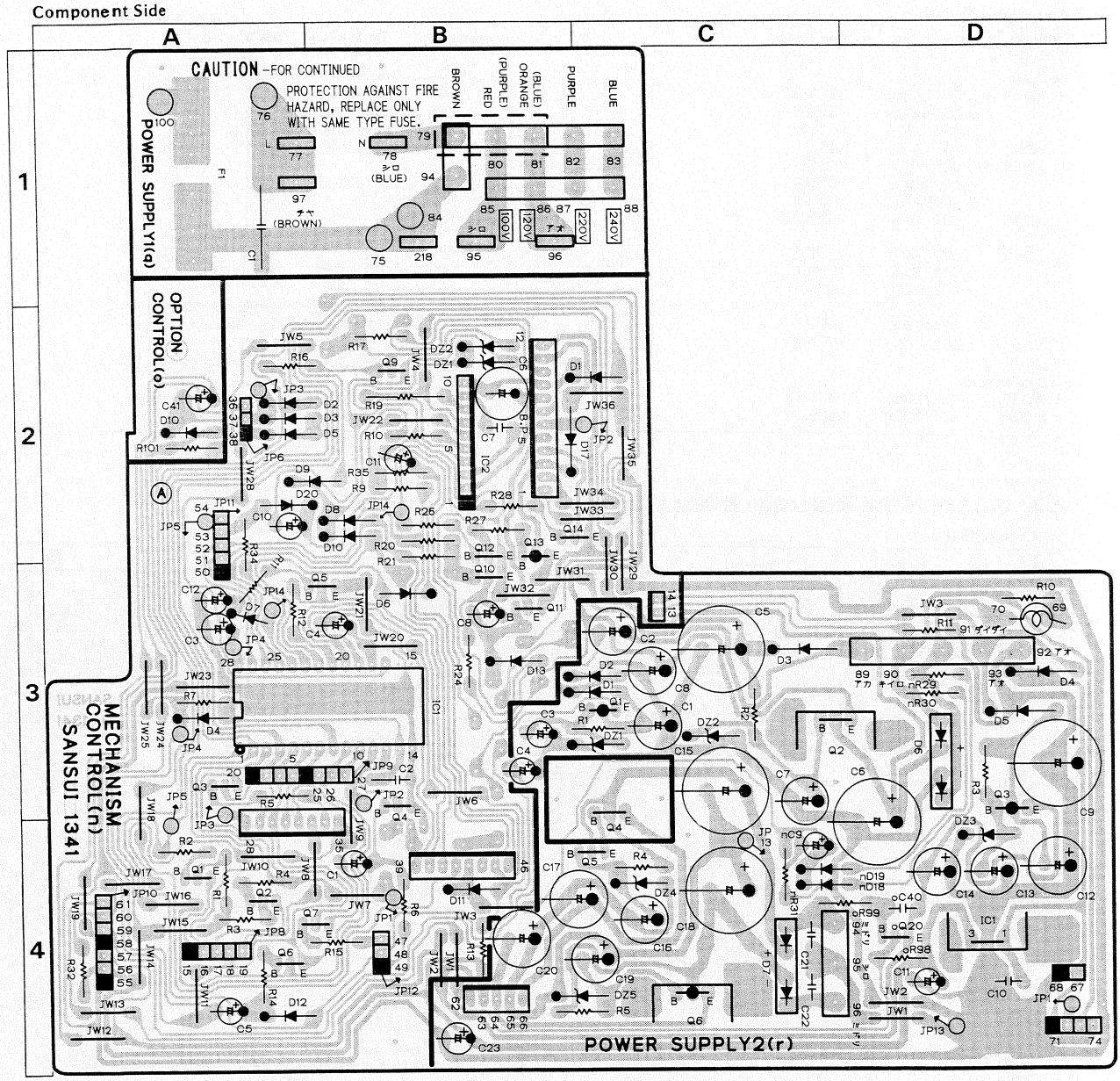

Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| •IC | | |
| IIC1 | 07224500 | LA4170 |
| IVR1 | 46208800 | 10kΩ (B) VR, OUTPUT |
| •Transistor | | |
| pQ2~7 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| pQ16 | 03012701 | 2SA999 |
| | or 07299601 | 2SA1115 |
| | or 07194701 | 2SA1015 |

| Parts No. | Stock No. | Description |
|---|---|---|
| pQ17 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| •Diode | | |
| pD2, 3 | 03117700 | 10E-2 |
| pD4~7 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| pS1 | 46177900 | Push SW., DOLBY |
| pS3 | 46221300 | Push SW., TAPE MONITOR |

## 4-3. G-1341 Mechanism Control & Power Supply Circuit Board (Stock No. 00683101)

Component Side




### Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| •Transistor | | |
| nQ1~10 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| nQ11 | 46134200 | 2SD1111 |
| nQ12 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| nQ13 | 07206801 | 2SA952 |
| nQ14 | 46134200 | 2SD1111 |
| oQ20 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| rQ1 | 03012701 | 2SA999 |
| | or 07299601 | 2SA1115 |
| | or 07194701 | 2SA1015 |
| rQ2 | 03084501 | 2SD356 |
| | or 03086101 | 2SD357 |
| | or 03084801 | 2SD358 |

| Parts No. | Stock No. | Description |
|---|---|---|
| rQ3 | 07263401 | 2SB631 |
| | or 07206301 | 2SB631K |
| rQ4 | 03084501 | 2SD356 |
| | or 03086101 | 2SD357 |
| | or 03084801 | 2SD358 |
| rQ5 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| rQ6 | 03032801 | 2SB526 |
| | or 03034401 | 2SB527 |
| | or 03033101 | 2SB528 |
| •IC | | |
| nIC1 | 46178200 | MSM5836RS |
| nIC2 | 07233100 | BA6109 |
| rIC1 | 07183500 | μPC78M05H |

to be continued▶

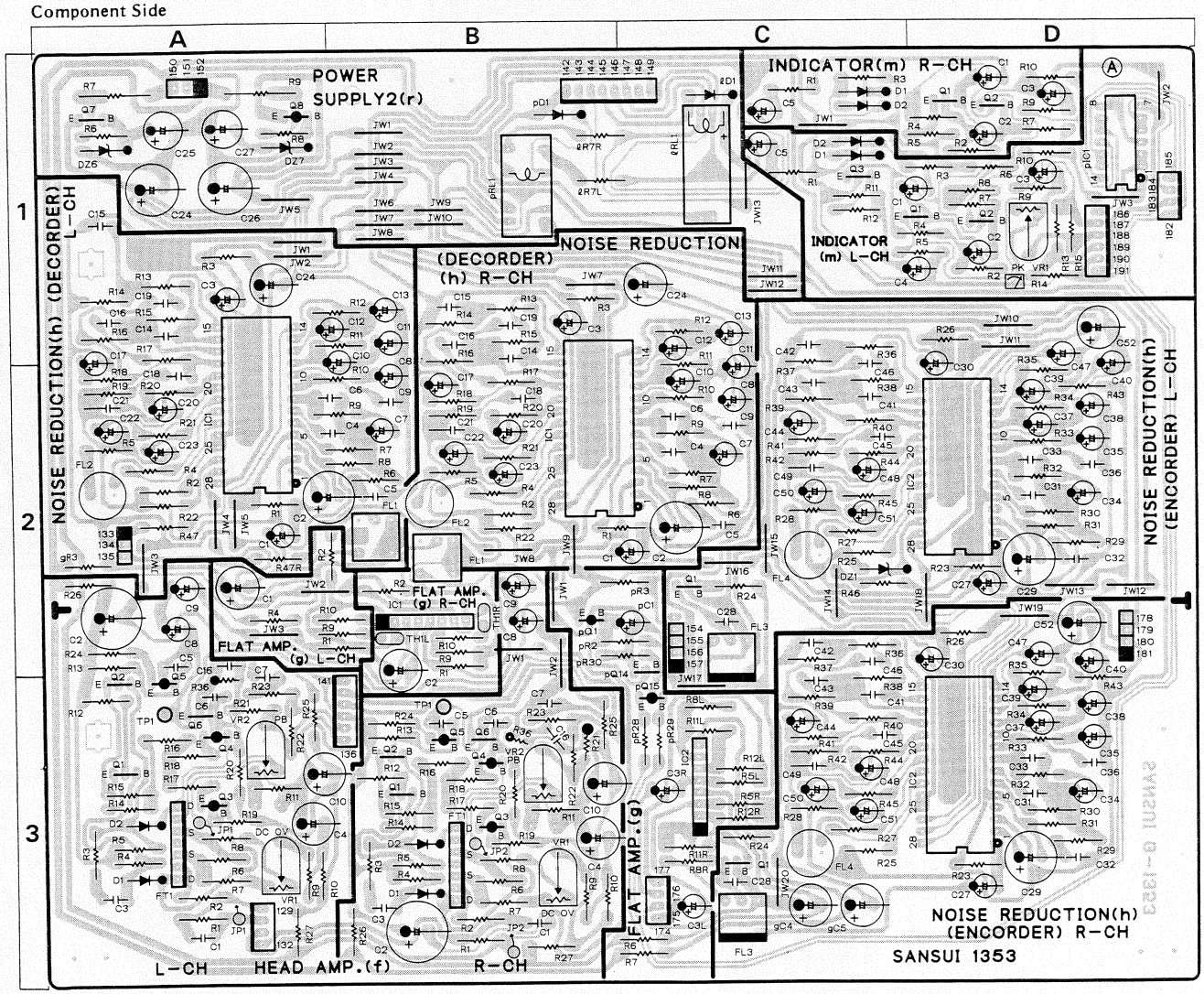
Parts List <G-1341>

| Parts No. | Stock No. | Description |
|---|---|---|
| •Diode | | |
| nD1~16 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| nD17 | 03117700 | 10E-2 |
| nD18, 19 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| nD20 | 03111600 | 1S2473D |
| oD10 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| rD1~5 | 03117700 | 10E-2 |
| rD6, 7 | 03117000 | RB-152 |
| •Zener Diode | | |
| nDZ1 | 46112000 | 05Z6.8X |
| nDZ2 | 46111200 | 05Z5.1Y |

| Parts No. | Stock No. | Description |
|---|---|---|
| rDZ1 | 46115400 | 05Z20Y |
| rDZ2 | 46113800 | 05Z12X |
| rDZ3 | 46111500 | 05Z5.6Y |
| rDZ4 | 46114300 | 05Z13Z |
| rDZ5 | 46114100 | 05Z13X |
| nR19 | 00182100 | 33Ω 1W N.I.R. |
| •Capacitor | | |
| nC6 | 08460800 | 100μF 10V B.P. |
| oC40 | 07215800 | 0.01μF 25V C.C. |
| qC1 | 08302200 | 0.01μF 125V C.C. |
| | or 08302600 | 0.01μF 400V C.C. |
| rC21, 22 | 00406200 | 0.01μF 100V F.C. |
| nPL1 | 46177100 | Pilot Lamp, 12V 0.1A |
| | 51863610 | Earth Washer |

## 4-4. G-1353 Noise Reduction & Head Amp. Circuit Board (Stock No. 00684301)

Component Side



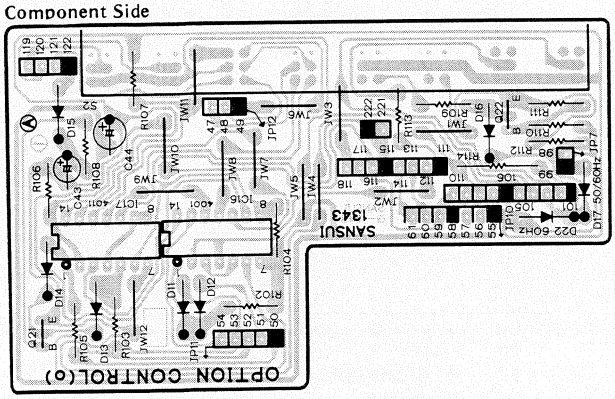
Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| ●Transistor | | |
| fQ1, 2 | 03067401 | 2SC1845 |
| | or 07299101 | 2SC2240 |
| fQ3~5 | 03010901 | 2SA992 |
| | or 07299001 | 2SA970 |
| fQ6 | 03067401 | 2SC1845 |
| | or 07299101 | 2SC2240 |
| hQ1 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| mQ1~3 | 03068301 | 2SC2320 |
| | or 07194801 | 2SC1815 |
| | or 07299701 | 2SC2603 |
| pQ1, 15 | 03012701 | 2SA999 |
| | or 07299601 | 2SA1115 |
| | or 07194701 | 2SA1015 |
| pQ14 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| rQ7 | 07263501 | 2SD600 |
| | or 07206401 | 2SB600K |
| rQ8 | 07263401 | 2SB631 |
| | or 07206301 | 2SB631K |
| ●FET | | |
| fFT1 | 07110000, 1 | μPA68H-L, M |
| ●Diode | | |
| fD1, 2 | 03401700 | MV103 |
| lD1 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| mD1, 2 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| pD1 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |

| Parts No. | Stock No. | Description |
|---|---|---|
| ●IC | | |
| gIC1, 2 | 46147700 | M5218L |
| hIC1, 2 | 46255300 | HA12038-01 |
| pIC1 | 07264600 | MSM4066RS |
| ●Zener Diode | | |
| hDZ1 | 46111200 | 05Z5.1Y |
| rDZ6, 7 | 46112400 | 05Z75Y |
| ●Filter | | |
| hFL1 | 46179100 | Filter, dolby |
| hFL2, 4 | 46177600 | Filter, 19.8 MHz |
| hFL3 | 46179200 | Filter, dolby |
| fC5, 6 | 46073600 | 22pF 125V P.C. |
| hC19, 46 | 46074200 | 39pF 125V P.C. |
| fVR1, 2 | 46257400 | 200Ω (B) SVR, DC 0V ADJ., PB Level |
| mVR1 | 10370600 | 5kΩ (B) SVR, peak level adj. |
| lRL1 | 46221400 | Relay, MUTE |
| pRL1 | 11505100 | Relay, REC/PLAY |
| gTH1 | 46257300 | Thermistor |
| rR7, 9 | 00180100 | 15Ω 1W N.I.R. |

## 4-5. G-1343 Option Control Switch Circuit Board (Stock No. 00683301)

Component Side



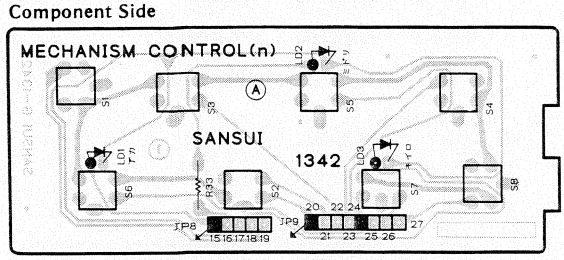

Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| ●Transistor | | |
| oQ21, 22 | 03068301 | 2SC2320 |
| | or 07299701 | 2SC2603 |
| | or 07194801 | 2SC1815 |
| ●IC | | |
| oIC16 | 03609500 | MSM4001RS |
| oIC17 | 03604000 | MSM4011RS |
| ●Diode | | |
| oD11~17 | 03117600 | 1S2473D |
| | or 46086000 | 1S1588 |
| | or 46092700 | US1035 |
| oD22 | 07176400 | 1S2473HS |
| oR114 | 00182200 | 330Ω 1W N.I.R. |
| oS2 | 46208700 | Push SW., COUNTER, DUAL MEMORY, AUTO, COMPU-TREC |

• Note: The circuit board, G-1342, G-1344, G-1345, G-1346, G-1349, G-1351 & G-1352 are not supplied as the assembled. However, the Individual parts on the circuit board are provided by orders.

## 4-6. G-1342 Control Switch Circuit Board

Component Side




Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| nLD1 | 46176900 | TLS123 (RED), REC |
| nLD2 | 07250900 | TLG123 (GRN), PLAY |
| nLD3 | 07251000 | TLY123 (YEL), PAUSE |
| nS1~8 | 46170500 | Push SW., control, REC MUTE, TAPE LEAD IN |

## 4-7. G-1344 Indicator Circuit Board

Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| mLD1~5 | 07250900 | TLG124 (GRN) |
| mPL1, 2 | 07193600 | Lamp, MONITOR |

## 4-8. G-1345 Timer Switch Circuit Board

Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| nS9 | 46177800 | Slide SW., TIMER |

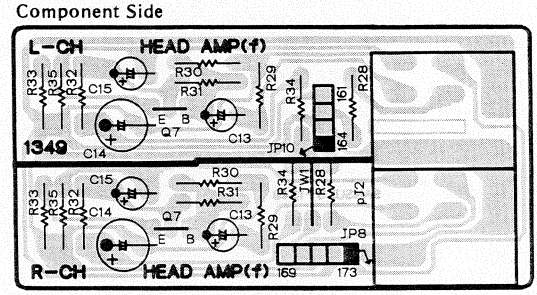
## 4-9. G-1346 Real Time Switch Circuit Board

Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| oS1 | 11102800 | Slide SW., REAL TIME SET |

## 4-10. G-1349 Mic. Amp. Circuit Board

Component Side




Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| fQ7 | 07225401 | 2SC2320L |
| pJ2 | 46212000 | Jack, MIC |

## 4-11. G-1351 Input/Output Terminal Circuit Board

Parts List

| Parts No. | Stock No. | Description |
|---|---|---|
| pJ3 | 07249100 | 4P INPUT/OUTPUT Terminal Board |

## 4-12. G-1352 Phone Jack Circuit Board

Parts List

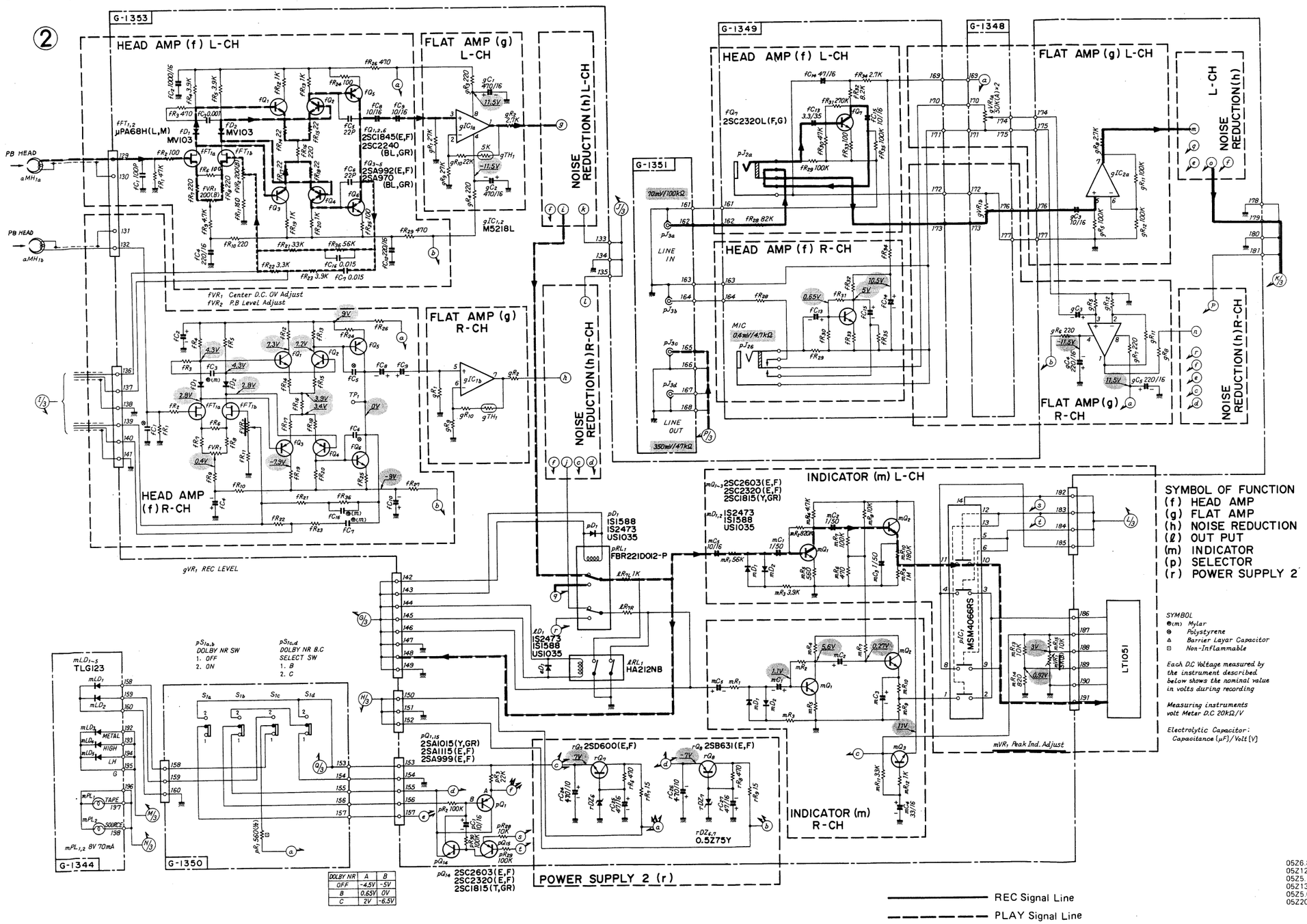
| Parts No. | Stock No. | Description |
|---|---|---|
| pJ1 | 46265700 | Jack, PHONES |

• **Abbreviations**

C.R. : Carbon Resistor
S.R. : Solid Resistor
Ce.R. : Cement Resistor
M.R. : Metal Film Resistor
F.R. : Fusing Resistor
N.I.R. : Non-Inflammable Resistor
C.C. : Ceramic Capacitor
C.T. : Ceramic Capacitor, Temperature Compensation
E.C. : Electrolytic Capacitor
E.L. : Low Leak Electrolytic Capacitor
E.B. : Bi-Polar Electrolytic Capacitor
E.B.L. : Low Leak Bi-Polar Electrolytic Capacitor
Ta.C. : Tantalum Capacitor
F.C. : Film Capacitor
M.P. : Metalized Paper Capacitor
P.C. : Polystyrene Capacitor
G.C. : Gimmic Capacitor
V.R. : Variable Resistor
S.V.R. : Semi Variable Resistor
SW. : Switch

# 5. SCHEMATIC DIAGRAM 5-1. Amplifier Section I

*.Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.




| DOLBY NR | A | B |
|---|---|---|
| OFF | -4.5V | -5V |
| B | 0.65V | 0V |
| C | 2V | -6.5V |

SYMBOL OF FUNCTION
(f) HEAD AMP
(g) FLAT AMP
(h) NOISE REDUCTION
(ℓ) OUT PUT
(m) INDICATOR
(p) SELECTOR
(r) POWER SUPPLY 2

*SYMBOL*
●(m) *Mylar*
⊗ *Polystyrene*
△ *Barrier Layar Capacitor*
⊡ *Non-Inflammable*

*Each DC Voltage measured by the instrument described below shows the nominal value in volts during recording*

*Measuring instruments volt Meter D.C 20KΩ/V*

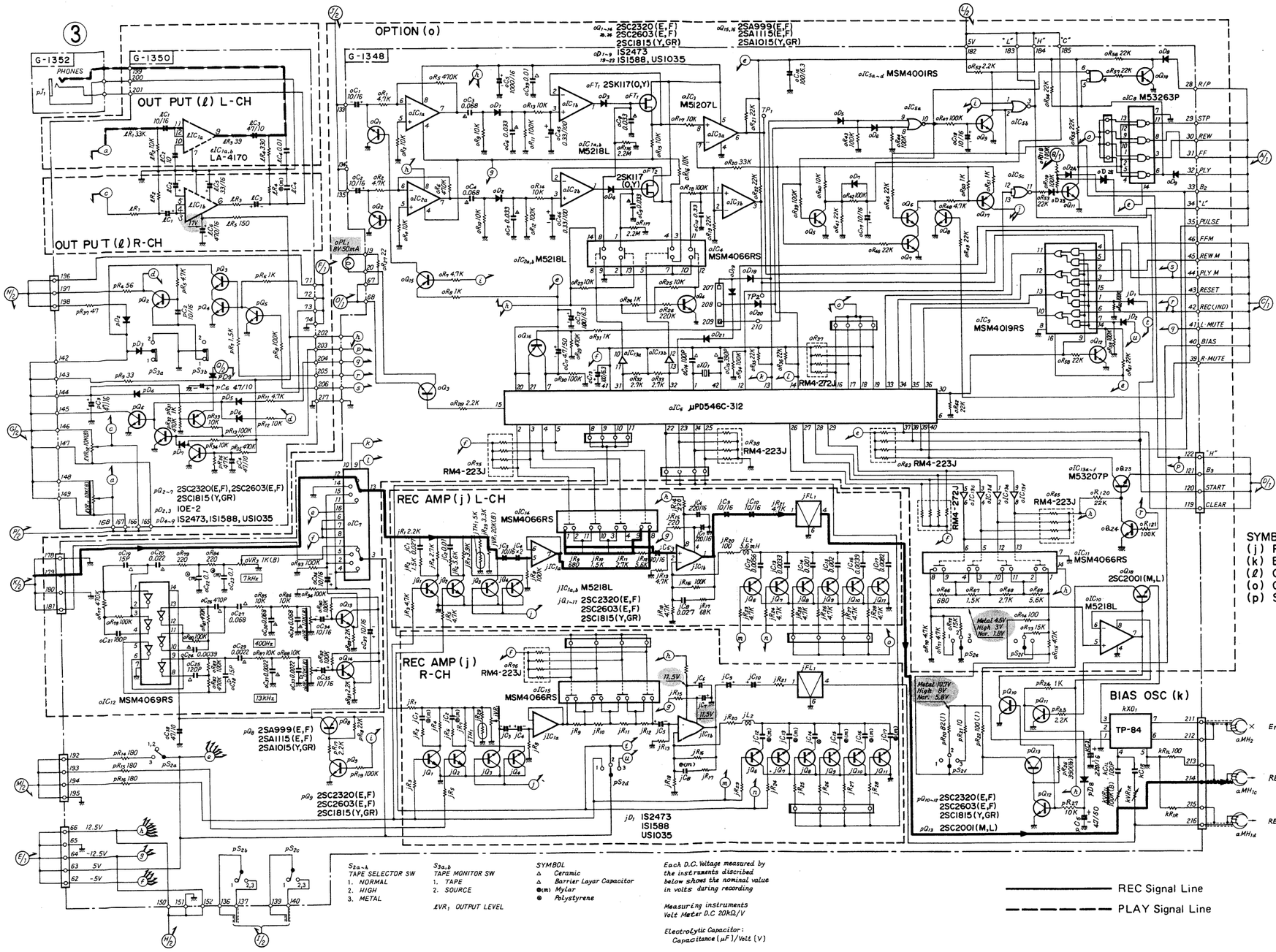
*Electrolytic Capacitor: Capacitance (μF)/Volt (V)*

2SA952 2SA970 2SA992 2SA999 2SA1015 2SC1815 2SC1845 2SC2240 2SC2320 2SC2320L 2SCD1111 — 2SC2001
2SB526 2SB527 2SB528 2SD356 2SD357 2SD358 — 2SB631 2SD600.K
2SC2603 — 2SA1115
78M05H — BA6109
MSM4052RS
M53203P M53207P MSM4001RS MSM4011RS MSM4069RS
LA4170 MSM4066RS
μPD546C
HA12038 MSM5836RS
MSM4019RS
M51207L M5218L
RB152 — 2SK117-0,Y
μPA68H-L,M
05Z6.8X 05Z12X 05Z5.1-X,Y 05Z13X,Z 05Z5.6-Y 05Z20Y — 10E-2 1S1588 1S2473D US1035 — MV103

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|

## 5-2. Amplifier Section II

* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.




2SA952 2SA970 2SA992 2SA999 2SA1015 2SC1815 2SC1845 2SC2240 2SC2320 2SC2320L 2SCD1111 — 2SC2001 2SB526 2SB527 2SB528 2SD356 2SD357 2SD358

2SB631 2SD600.K — 2SC2603

2SA1115 — 78M05H

BA6109

MSM4052RS

M53203P M53207P MSM4001RS MSM4011RS MSM4069RS

LA4170 MSM4066RS

μPD546C

HA12038 MSM5836RS

MSM4019RS

M51207L M5218L

RB152 — 2SK117-O,Y

μPA68H L,M

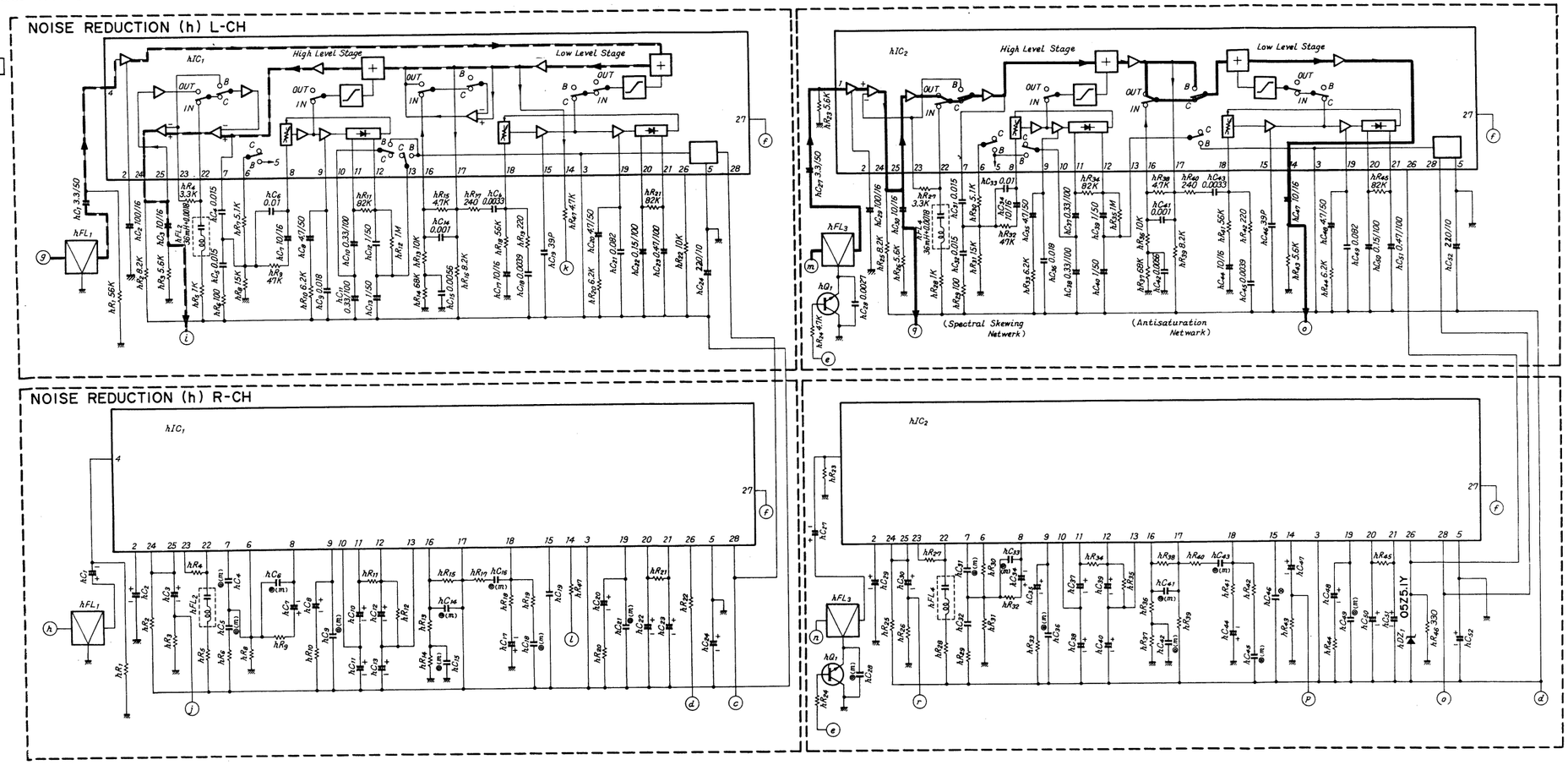
05Z6.8X 05Z12X 05Z5.1-X,Y 05Z13X,Z 05Z5.6-Y 05Z20Y — 10E-2 1S1588 1S2473D US1035 — MV103

1 2 3 4 5

## 5-3. Noise Reduction Section

* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans preavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

④ G-1353




SYMBOL OF FUNCTION
(h) NOISE REDUCTION

$hIC_{1,2}$ HA12038

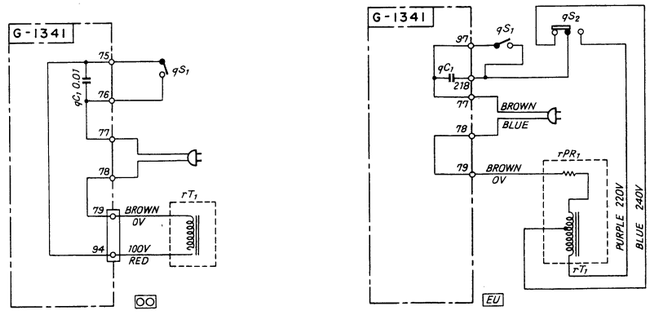
$hQ_1$ 2SC2320 (E,F)
2SC2603 (E,F)
2SC1815 (Y,GR)

REC Signal Line
PLAY Signal Line

SYMBOL
⊛(m) Mylar
⊛ Polystyrene

*Each D.C. Voltage measured by the instruments discribed below shows the nominal value in volts during recording*

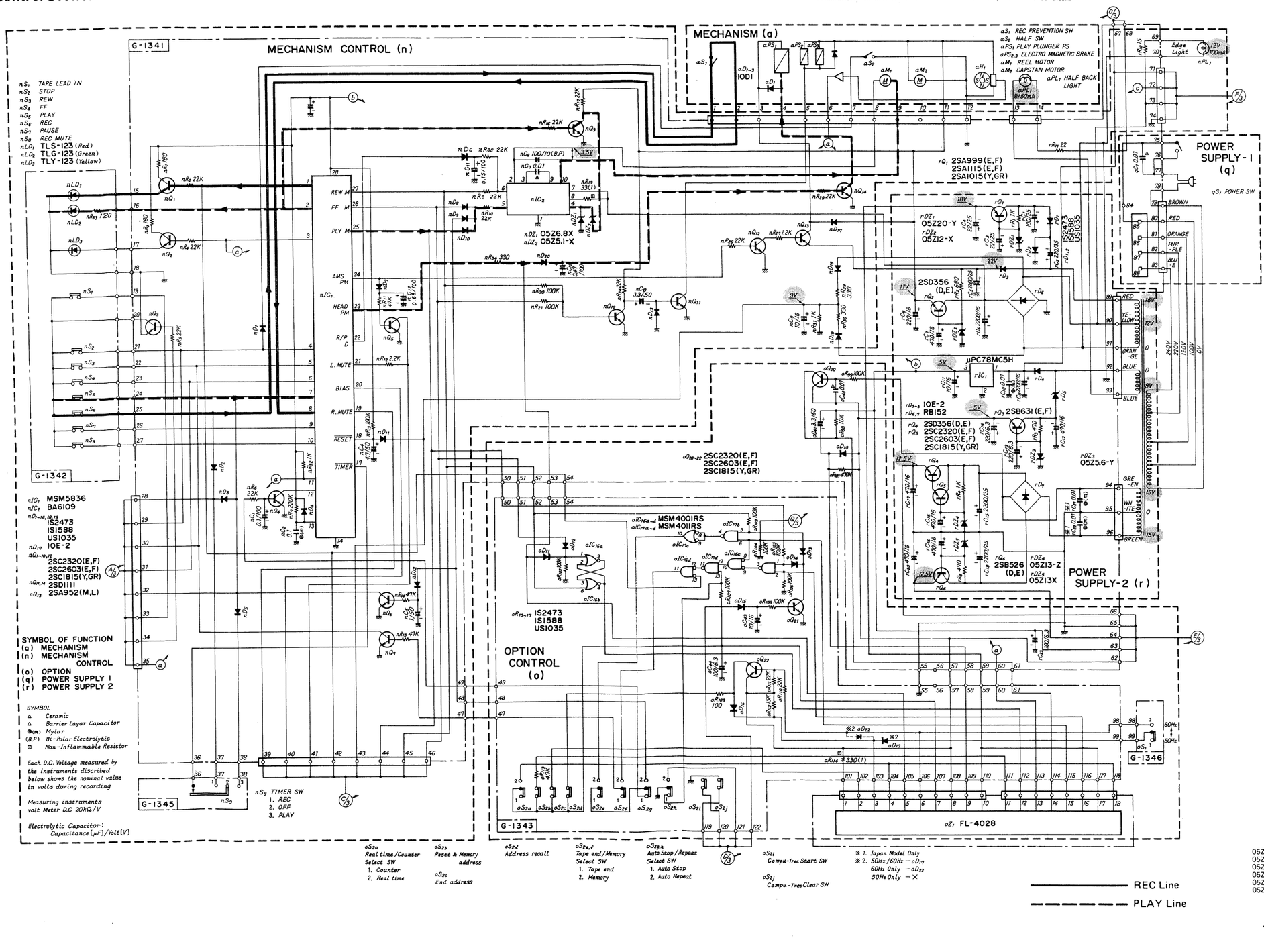
*Measuring instruments volt Meter D.C. 20kΩ/V*




2SA952 2SC2001
2SA970
2SA992
2SA999
2SA1015
2SC1815
2SC1845
2SC2240
2SC2320
2SC2320L
2SCD1111
2SB526
2SB527
2SB528
2SD356
2SD357
2SD358
2SB631
2SD600.K
2SC2603
2SA1115
78M05H
BA6109
MSM4052RS
M53203P
M53207P
MSM4001RS
MSM4011RS
MSM4069RS
LA4170
MSM4066RS
μPD546C
HA12038
MSM5836RS
MSM4019RS
M51207L
M5218L
RB152 2SK117-O,Y
μPA68H-L,M
05Z6.8X
05Z12X
05Z5.1-X,Y
05Z13X,Z
05Z5.6-Y
05Z20Y
10E-2
1S1588
1S2473D
US1035
MV103
05Z5.1Y

## 5-4. Control Section

* Design and specifications subject to change without notice for improvement.
* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.




2SA952 2SA970 2SA992 2SA999 2SA1015 2SC1815 2SC1845 2SC2240 2SC2320 2SC2320L 2SCD1111 2SC2001 2SB526 2SB527 2SB528 2SD356 2SD357 2SD358 2SB631 2SD600.K 2SC2603 2SA1115 78M05H BA6109 MSM4052RS M53203P M53207P MSM4001RS MSM4011RS MSM4069RS LA4170 MSM4066RS µPD546C HA12038 MSM5836RS MSM4019RS M51207L M5218L RB152 2SK117-O,Y µPA68H-L,M 05Z6.8X 05Z12X 05Z5.1-X,Y 05Z13X,Z 05Z5.6-Y 05Z20Y 10E-2 1S1588 1S2473D US1035 MV103

# 6. MAIN PARTS REPLACEMENT

## A. Mechanism assembly

(See Exploded View on Page 17 & Top View on Page 19)

1) Remove the cassette lid.
2) Remove the bonnet and the front panel assembly.
3) Remove the bottom plate.
4) Extract two connectors Ⓧ from the mechanism control board G-1341.
5) Remove the noise reduction board G-1353 and then extract one connector Ⓨ from the board and extract one connector Ⓩ from REC/PB AMP board G-1348. Lasely remove the harness.
6) Loosen out two upper and lower screws fixing the mechanism assembly.
7) Remove E-type washer. ㊴ and spring ㊹ retaining cassette well lack Plate and pull out it.
8) Pull out the mechanical assembly for the rear panel side.

## B. Cassette well assembly

1) Remove Mechanism Ass'y from set.
2) Remove the CS-type ring ㊻ retaining the damper spring ㊺.
3) Remove the CS-type ring ㊻ retaining the eject damper.
4) Remove three screws ㊷ fastening the cassette well mounting plate A.
5) Remove the cassette well assembly.

## C. Capstan motor (Rotor) & Flywheel

1) Remove Mechanism Ass'y from set.
2) Loosen two screws ㊷ fastening play-plunger fixing plate.
3) Take out two circuit boards from Mechanism Ass'y.
4) Pull out poly-washer retaining capstan shaft.
5) Pull out rotor or flywheel.

## D. Reel Motor assembly ⑰

1) Perform "Section C. Capstan motor step 1) ~ 3)," first.
2) Cuts the harness of motor cords.
3) Loosen out five screws ⑧ ⑳ fastening reel motor fixing plate.
4) Take out reel motor with fixing plate.
5) Loosen out two screws ⑱ fastening reel motor.

## E. Electromagnetic brake ⑲

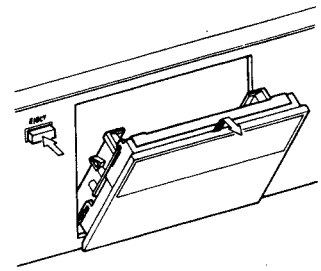
1) Remove mechanism Ass'y from set.
2) Loosen out two screws ㊶ fastening mechanism cover ㊵.
3) Loosen out one screw ⑧ fastening back tension adjusting plate A & pdy-washer ㉑ retaining reel hub Ass'y ㉒ ㉓.

## F. Idler (Fig. 7-2)

1) Remove the cassette lid.
2) Remove the mechanism cover assembly.
3) Remove the washer ⑩ retaining the idler.
4) Take out the idler.

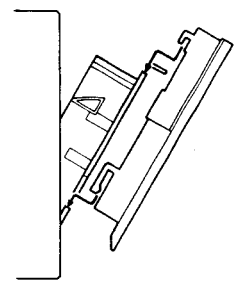
## G. Removement & Attachment of Lid Ass'y

Fig. 6-1



Depress the EJECT button to open the cassette Lid Ass'y, and pull the Lid Ass'y up and then toward you to remove it as shown in the figure.

Fig. 6-2



Re-attach the cover to the cassette Lid Ass'y by following the procedure for its removal in reverse.

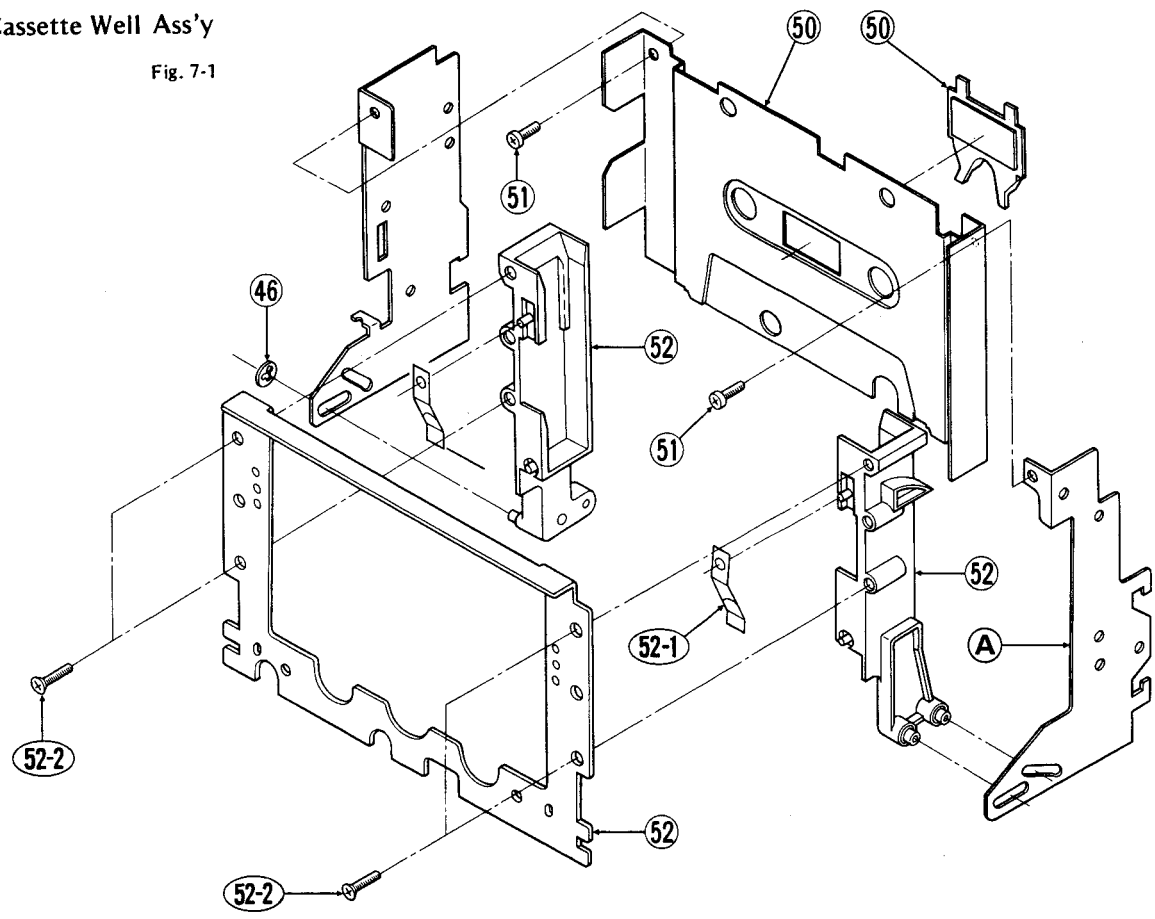
# 7. EXPLODED VIEW & PARTS LIST

Parts List <Mechanism>

| Parts No. | Stock No. | Description |
|---|---|---|
| 1 | 65400300 | Steel Ball, D = 2 |
| 2 | 09446800 | Rec Lever |
| 3 | 46396800 | Screw, M2.5 x 5 |
| 4 | 47021500 | Leaf SW, |
| 5 | 47021600 | Spacer, |
| 6 | 09447000 | Spring, |
| 7 | 46198700 | Rec & PB Head |
| 8 | 09447300 | Nut, |
| 9 | 07736700 | Screw, M2 x 13 |
| 10 | 07736300 | Screw, M2 x 3 |
| 11 | 47021700 | Plate, earth head |
| 12 | 07736100 | Earth Head |
| 13 | 47021800 | Screw, M2.5 x 4 |
| 14 | 00489200 | E-type Washer, D = 3 |
| 15 | 08322600 | E-type Washer, D = 2.5 |
| 16 | 09478800 | Spring, half hold |
| 17 | 09465100 | Reel Motor Ass'y |
| 17-1 | 07879300 | Stopper Washer (See Fig. 7-2) |
| 17-2 | 07879200 | Idler |
| 17-3 | 07879400 | Poly-washer |
| 18 | 07736400 | Screw, M2.6 x 3 |
| 19 | 47022000 | Magnet Brake |
| 20 | 09461900 | Screw, M2.3 x 4 |
| 21 | 09462000 | Spring, |
| 22 | 47022100 | Reel Hub Ass'y, supply |
| 23 | 09462200 | Reel Hub Ass'y, take-up |
| 24 | 07732600 | Poly-Washer |
| 25 | 09462400 | Leaf SW, |
| 26 | 09462700 | Steel Ball, D = 3 |
| 27 | 47022200 | DD Motor, capstan |
| 28 | 09462800 | Nut, M9 |
| 29 | 09463700 | Screw, M2 x 3.2 |
| 30 | 09463000 | Pinch Roller Ass'y |
| 31 | 07734700 | Spring, |
| 32 | 00489000 | E-type Washer, D = 2 |
| 33 | 47022300 | Spacer, |
| 34 | 47022400 | Spring, |
| 35 | 00420600 | Screw, M2 x 6 |
| 36 | 47022900 | Back Tension Servo Ass'y |
| 37 | 07661100 | Adjusting Plate (B), back tension |
| 38 | 00488900 | E-type Washer, D = 1.5 |
| 39 | 07734000 | Cushion |
| 40 | 07719800 | Plunger, |
| 41 | 00449100 | Screw, M3 x 6 |
| 42 | 47022500 | Screw, M2.5 x 6 |
| 43 | 09463600 | Magnetical Element |
| 44 | 09464500 | Spring, |
| 45 | 09464700 | Spring, |
| 46 | 51830000 | CS-type Washer |
| 47 | 09464600 | Damper Ass'y |
| 48 | 47022600 | Screw, M2.5 x 25 |
| 49 | 00470200 | Toothed Lock Washer |
| 50 | 47022700 | Mechanism Cover Ass'y (red) |
| 51 | 09465000 | Screw, M2.5 x 5 |
| 52 | 09465200 | Cassette Well Ass'y |
| 52-1 | 09465600 | Cassette Half Spring |
| 52-2 | 09464400 | Screw, M2.6 x 8 |
| 53 | 09461600 | Spacer, Rec & PB head |
| 54 | 47021900 | Brake case |

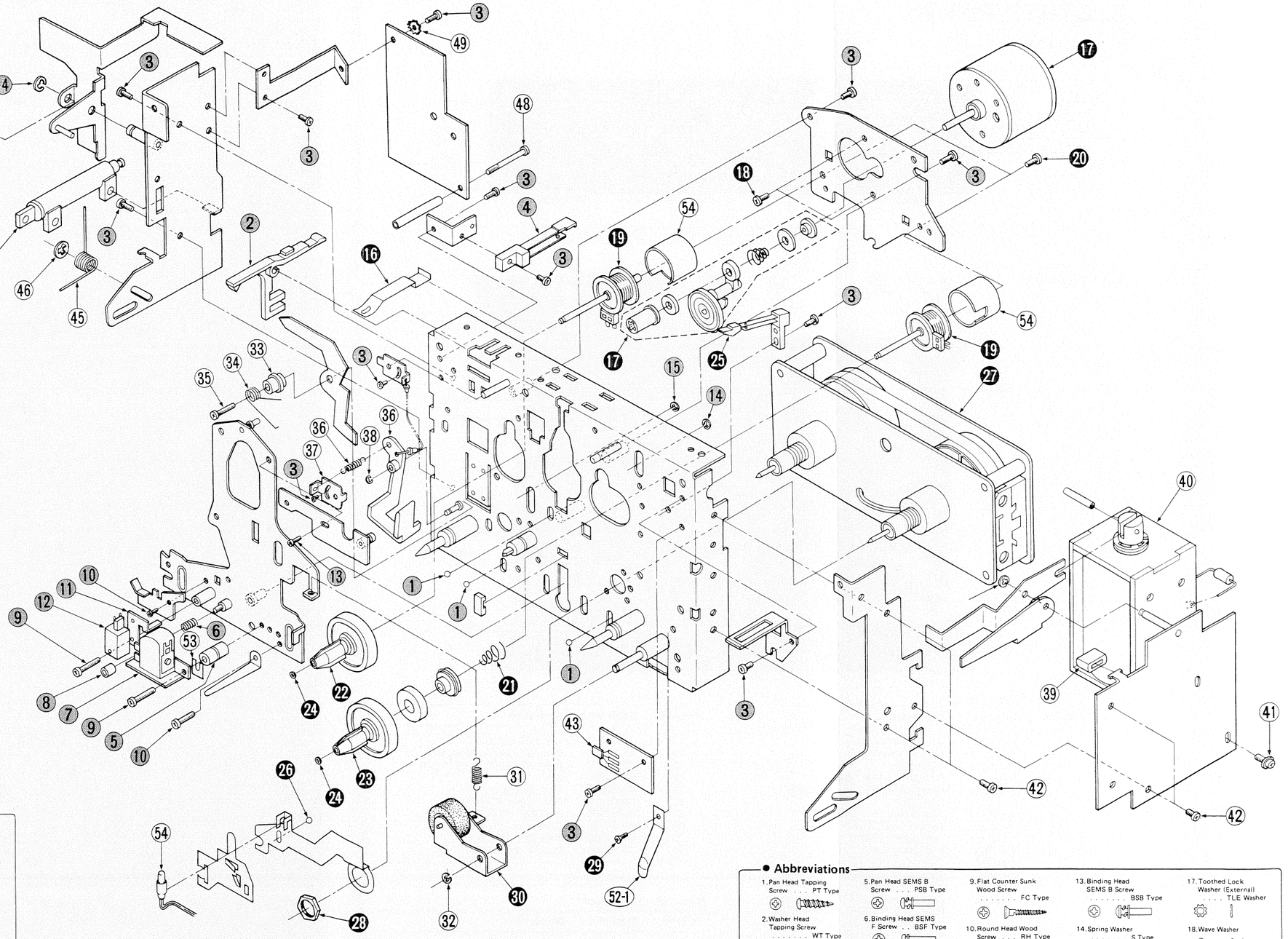
## 7-1. Cassette Well Ass'y

Fig. 7-1

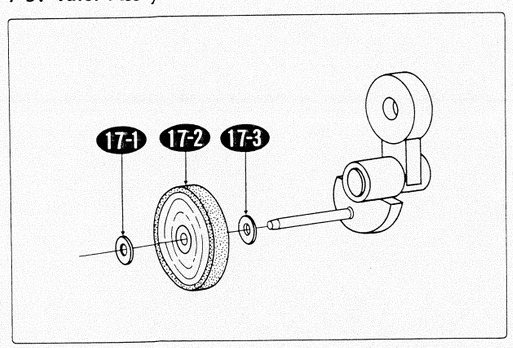


## 7-2. Mechanism Ass'y

Fig. 7-2




## 7-3. Idler Ass'y

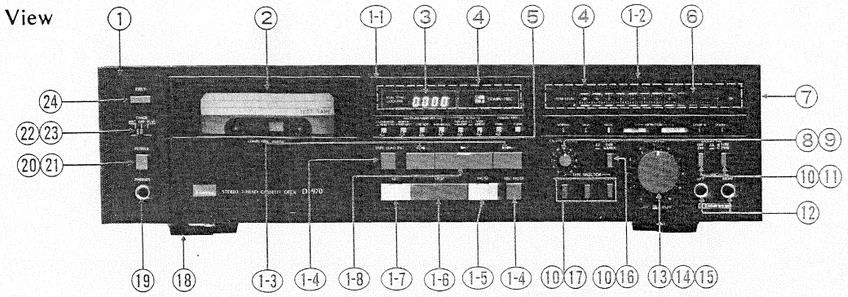



● Abbreviations

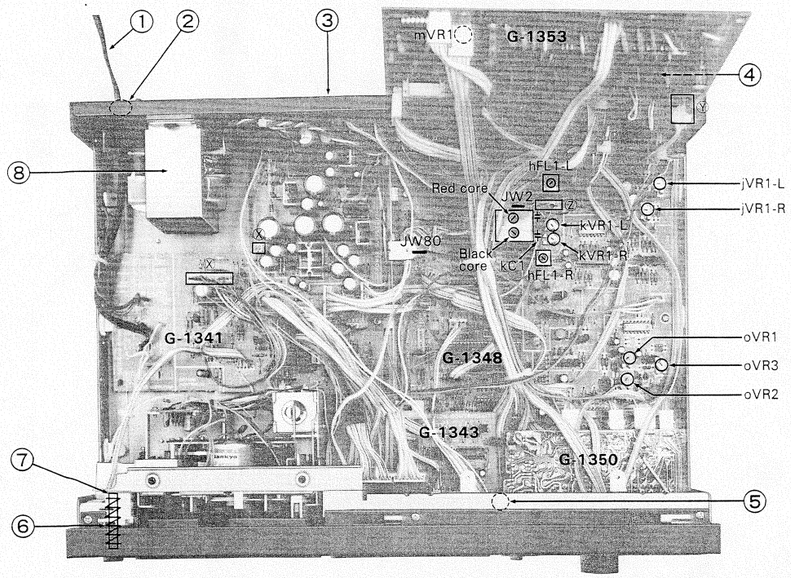
1. Pan Head Tapping Screw . . . PT Type
2. Washer Head Tapping Screw . . . . . WT Type
3. Pan Head Screw . . . . . P Type
4. Pan Head SEMS A Screw . . . PSA Type
5. Pan Head SEMS B Screw . . . PSB Type
6. Binding Head SEMS F Screw . . BSF Type
7. Binding Head Screw . . . B Type
8. Flat Counter Sunk Head Screw . F Type
9. Flat Counter Sunk Wood Screw . . . . . FC Type
10. Round Head Wood Screw . . . . RH Type
11. Hex. Socket Setscrew . . . SC Type
12. Slot Type Setscrew . . . SS Type
13. Binding Head SEMS B Screw . . . . . BSB Type
14. Spring Washer . . . . . S Type
15. Plain Washer . . . . . P Type
16. Retaining Ring (E Washer) . . E Type
17. Toothed Lock Washer (External) . . . . TLE Washer
18. Wave Washer
19. Hexagon Nut H Type Nut

# 8. OTHER PARTS

8-1. Front View




8-2. Top View




Parts List <Front View>

| Parts No. | Stock No. | Description |
|---|---|---|
| 1 | 09445910 | Front Panel Ass'y |
| 1-1 | 09427100 | Counter Glass |
| 1-2 | 09426500 | Meter Glass |
| 1-3 | 09437800 | Push Button, ▶▶, ◀◀ |
| 1-4 | 09428300 | Push Button, REC MUTE, TAPE LEAD IN |
| 1-5 | 09455000 | Push Button, PAUSE |
| 1-6 | 09437600 | Push Button, STOP |
| 1-7 | 09448900 | Push Button, REC |
| 1-8 | 09448700 | Push Button, ▶ |
| 2 | 09449700 | Lid Ass'y |
| 3 | 46164500 | Fluorescent Display Tube, counter |
| 4 | 09447900 | Meter Frame Ass'y |
| 5 | 09425800 | Push Knob, COUNTER, DUAL MEMORY, AUTO COMPU-TREC |
| 6 | 46176800 | Peak Level Meter (L.E.D. LT1051) |
| 7 | 09425300 | Bonnet |
| 8 | 07680600 | Knob, OUTPUT VR |
| 9 | 46208800 | VR, OUTPUT |
| 10 | 09443700 | Push Knob, DOLBY, TAPE SELECTOR, MONITOR |
| 11 | 46177900 | Push SW., DOLBY |
| 12 | 46212000 | Jack, MIC |
| 13 | 09419400 | Knob, REC LEVEL LEFT |
| 14 | 09419500 | Knob, REC LEVEL RIGHT |
| 15 | 46177000 | VR, REC LEVEL |
| 16 | 46221300 | Push SW., TAPE MONITOR |
| 17 | 46178000 | Push SW., TAPE SELECTOR |
| 18 | 07822700 | Leg |
| 19 | 46265700 | Jack, PHONES |
| 20 | 07809800 | Push Knob, POWER |
| 21 | 46087300 | Push SW., POWER |
| 22 | 09444600 | Slide Knob, TIMER |
| 23 | 46177800 | Slide SW., TIMER |
| 24 | 07829400 | Push Knob, EJECT |

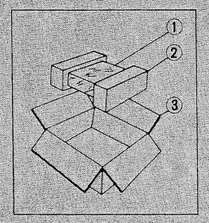
Parts List <Top View>

| Parts No. | Stock No. | Description |
|---|---|---|
| 1 | 38004700 | Power Supply Cord |
| 2 | 39106000 | Strain Relief |
| 3 | 11102800 | Slide SW., REAL TIME SET |
| 4 | 07249100 | 4P INPUT/OUTPUT Terminal |
| 5 | 46220700 | Pilot Lamp, 8V 50mA |
| 6 | 09419800 | Compression Spring |
| 7 | 09419100 | EJECT Bar |
| 8 | 15007301 | Power Transformer |



# 9. PACKING LIST

| Parts No. | Stock No. | Description |
|---|---|---|
| 1 | 91167610 | Vinyl Bag |
| 2 | 07811900 | Styrofoam Packing |
| 3 | 09459500 | Carton Case |




# 10. ACCESSORY LIST

| Stock No. | Description |
|---|---|
| 46143400 | Operating Instruction |
| 38103300 | Pin Plug Cord |

Sansui

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